

Abstract of the Disclosure

5 A field emission device (FED) and a method for fabricating the FED are
provided. The FED includes micro-tips with nano-sized surface features, and a
focus gate electrode over a gate electrode, wherein one or more gates of the gate
electrode is exposed through a single opening of the focus gate electrode. In the
10 FED, occurrence of arcing is suppressed. Although an arcing occurs in the FED,
damage of a cathode and a resistor layer is prevented, so that a higher working
voltage can be applied to the anode. Also, due to the micro-tips with nano-sized
surface features, the emission current density of the FED increases, so that a high-
brightness display can be achieved with the FED. The gate turn-on voltage can be
lowered due to the micro-tip as a collection of nano-sized tips, thereby reducing
15 power consumption.